

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appellants : Bruce H. HANSON et al. Group Art Unit: 3653  
Appln. No. : 10/630,754 Examiner: Hageman, M.  
Filed : July 31, 2003 Confirmation No.: 2023  
For : SEQUENCING SYSTEM AND METHOD OF USE

**APPEAL BRIEF UNDER 37 C.F.R. §41.37**

Commissioner for Patents  
United States Patent and Trademark Office  
Customer Service Window, Mail Stop Appeal Brief-Patents  
Randolph Building  
401 Dulany Street  
Alexandria, VA 22314

Sir:

This appeal is from the Examiner's rejection of claims 1-20 as set forth in the final Office Action dated September 11, 2006. A Pre-Appeal Brief Request for Review, a Notice of Appeal, and the associated fee under 37 C.F.R. §41.20(b)(1) were submitted on December 11, 2006.

A Notice of Panel Decision from Pre-Appeal Brief Review was mailed on December 28, 2006. The Panel Decision maintained the rejection of claims 1-20 and set the time period for filing an appeal brief to February 12, 2007 (February 11, 2007 being a Sunday), this date being the later of one month from the mailing of the Panel Decision or the balance of the two-month time period from the filing of the Notice of Appeal.

Accordingly, this Appeal Brief is being timely submitted by the initial due date of February 12, 2007. Payment of the requisite fee under 37 C.F.R. §41.20(b)(2) is submitted herewith. No additional fee is believed to be required for filing the instant Appeal Brief.

However, if for any reason the necessary fee is not associated with this file, the undersigned authorizes the charging of any filing fees for the Appeal Brief and/or any necessary extension of time fees to Deposit Account No. 19 - 0089.

**(I) REAL PARTY IN INTEREST**

The real party in interest is Lockheed Martin Corporation, assignee of the entire interest in the above-identified application by an assignment recorded in the U.S. Patent and Trademark Office on July 31, 2003, at Reel 014356 and Frame 0256.

**(II) RELATED APPEALS AND INTERFERENCES**

The Appellants, their legal representatives and the Assignee are not currently aware of any appeals, interferences, or judicial proceedings that may directly affect or be directly affected by or have some bearing on the Board's decision in this appeal. Attached hereto is a Related Proceedings Appendix showing no related appeals or interferences.

**(III) STATUS OF THE CLAIMS**

In the final Office Action dated September 11, 2006, claims 1-20 are pending and rejected. Claims 1-20 are being appealed and are listed in the "Claims Appendix" attached herewith.

**(IV) STATUS OF THE AMENDMENTS**

No amendments to the claims have been filed subsequent to the final Office Action dated September 11, 2006. Claims 1-20 are currently pending.

**(V) SUMMARY OF THE CLAIMED SUBJECT MATTER****Independent Claim 1**

By way of non-limiting example, the invention provides for a system for sequencing products comprising a plurality of input feeding devices 102a-d each randomly receiving products from a stream of product “PS” (page 7, lines 5-25; page 11, lines 9-11; FIG. 1). The system also includes a plurality of output groups 106a-d corresponding to the plurality of input feeding devices during a first pass phase and a second pass phase. The plurality of input feeding devices feed the product to a plurality of output bins 106 of the plurality of output groups (page 7, line 20 through page 8, line 22; FIGS. 1-3). Additionally, the system comprises a control “C” having a first mode of operation and a second mode of operation for the first pass phase and the second pass phase, respectively. In the first mode, the control allows all input feeding devices of the plurality of input feeding devices complete access to all output groups of the plurality of output groups during the first pass phase (page 8, lines 11-22; FIG. 2). In the second mode, the control constrains placement of the products to output groups assigned in the first pass phase such that the groupings of the products to the assigned output groups remain constant between the first pass phase and the second pass phase (page 9, lines 4-16; FIG. 3).

**Independent Claim 13**

By way of non-limiting example, the invention provides for a system for sequencing products comprising a plurality of input feeding devices 102a-d each randomly receiving products from a stream of product “PS” (page 7, lines 5-25; page 11, lines 9-11; FIG. 1). The system further includes a plurality of output groups 106a-d corresponding to the plurality of input feeding devices during a first pass phase and a second pass phase. The plurality of input feeding devices feed the products to output bins 106 of the plurality of output groups (page 7,

line 20 through page 8, line 22; FIGS. 1-3). Additionally, the system comprises a control “C” allowing all input feeding devices of the plurality of input feeding devices complete access to all output groups of the plurality of output groups during the first pass phase and assigning contiguous output bins to predetermined output groups of the plurality of output groups and associating each of the predetermined output groups with respective input feeding devices such that the predetermined output groups remain constant between the first pass phase and the second pass phase (page 8, line 1 through page 9, line 16; FIGS. 2-3).

#### **Independent Claim 17**

By way of non-limiting example, the invention provides for a method of sequencing product comprising the step of providing a plurality of product from a stream of product “PS” to any of a plurality of input devices 102a-d (page 11, lines 6-10; FIGS. 1 and 4). The method further includes feeding each of the plurality of product, in a first pass phase, to an assigned group of output bins 106 of a plurality of output groups 106a-d based on a code associated with the each of the product. The plurality of product are fed by the plurality of input devices (page 11, lines 10-20; FIGS. 2 and 4). Additionally, the method includes assigning each of the plurality of input devices to each of the assigned group of output bins (page 11, lines 21-22; FIG. 4).

**(VI) GROUND OF REJECTION TO BE REVIEWED ON APPEAL**

(A) Claims 1-20 are rejected under 35 U.S.C. §102(b) as being anticipated by U.S.

Patent No. 6,107,588 issued to De Leo et al.

(B) Claims 1-20 are rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent

No. 6,274,836 issued to Walach et al.

**(VII) ARGUMENTS**

**(A) Claims 1-20 rejected under 35 U.S.C. §102(b) as being anticipated by  
U.S. Patent No. 6,107,288 issued to De Leo et al (“De Leo”).**

*Claims 1-6 and 9-12 rejected under 35 U.S.C. §102(b) in view of De Leo*

The rejection of claims 1-6 and 9-12 under 35 U.S.C. §102(b) is in error, the decision of the Examiner to reject these claims should be reversed, and the application should be remanded to the Examiner.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). MPEP §2131. Appellants submit that De Leo does not show each and every feature of the claimed invention, and, therefore, fails to anticipate the claimed invention.

The instant invention generally relates to a sequencing system and method of use and, more particularly, to a sequencing system using multiple induction points to sequence products and a method of use. In non-limiting exemplary embodiments of the invention, a plurality of input feeding devices 102a-d feed items to be sequenced (e.g., pieces of mail), via a controller, to a plurality of output bins 106. The output bins 106 are divided into output groups 106a-d. For

example, 360 output bins may be evenly divided into four output groups having 90 bins each. More specifically, a first output group 106a may comprise bins numbered 1-90, a second output group 106b may comprise bins numbered 91-180, a third output group 106c may comprise bins numbered 181-270, and a fourth output group 106d may comprise bins numbered 271-360.

During a first pass phase, any single item from the first input feeding device 102a may be directed to any single bin 106 of any of the four output groups 106a-d. Similarly, items from input feeding devices 102b-d may also be directed to any bin in any output group 106a-d. In this manner, the first pass phase sorts the items among the assigned output groups 106a-d. However, after the first pass phase, the items are not yet sequenced within the respective output groups.

After the first pass, items in the bins of first output group 106a (i.e., bins 1-90) are fed into the first input feeding device 102a. Similarly, items in the bins of the second output group 106b (i.e., bins 91-180) are fed to the second input feeding device 102b, items in the bins of the third output group 106c (i.e., bins 181-270) are fed to the third input feeding device 102c, and items in the bins of the fourth output group 106d (i.e., bins 271-360) are fed to the fourth input feeding device 102d. Now, during the second pass phase, items from the first input feeding device 102a are directed to an output bin of the first output group 106a, items from the second input feeding device 102b are directed to an output bin of the second output group 106b, items from the third input feeding device 102c are directed to an output bin of the third output group 106c, and items from the fourth input feeding device 102d are directed to an output bin of the fourth output group 106d. In this manner, the second pass phase sequences the items within the same output group as the first pass.

As is thus apparent from the above description, the specification, and the figures, any single item is directed to the same output group of output bins during both the first pass phase

and the second pass phase. Put another way, if an item is placed in a bin of the first output group 102a (i.e., bins 1-90) in the first pass phase, then that item is constrained to be placed in a bin of the first output group 102a in the second pass phase. Thus, groupings of the products to the assigned output groups remain constant between the first pass phase and the second pass phase. Specifically, independent claim 1 recites, in pertinent part:

... a plurality of input feeding devices each randomly receiving products from a stream of product;  
 a plurality of output groups corresponding to the plurality of input feeding devices during a first pass phase and a second pass phase, the plurality of input feeding devices feeding the product to a plurality of output bins of the plurality of output groups; and  
 a control having a first mode of operation and a second mode of operation for the first pass phase and the second pass phase, respectively, wherein  
     in the first mode, the control allows all input feeding devices of the plurality of input feeding devices complete access to all output groups of the plurality of output groups during the first pass phase, and  
     in the second mode, the control constrains placement of the products to output groups assigned in the first pass phase such that the groupings of the products to the assigned output groups remain constant between the first pass phase and the second pass phase.

The Examiner asserts that De Leo discloses the features of claim 1 in “col. 3, lines 10+; col. 5, lines 10+” (final Office Action, page 2). Appellants respectfully disagree.

De Leo discloses a method of sorting postal objects. In a first pass, a stream  $F_i$  of randomly ordered postal objects 7 is fed to first and second input devices A, B (FIG. 1a; col. 2, lines 25-49). Based upon a portion of a code associated with each object 7, a controller 22 directs the objects to any one of a plurality of output bins  $U_i$ . Each output bin  $U_i$  may correspond to a delivery address  $R_i$  along a postal route P (FIGS. 1a and 3). After the first pass, a container 20 is removed from each output bin  $U_i$  in a specified order to create collections  $C_a$  and  $C_b$  (FIG.



1a; col. 4, lines 30-67). In the second pass, the postal objects of collection  $C_a$  are fed to first input device A, and are directed towards a first subset  $W_a$  of output bins (FIG. 1b; col. 5, lines 10-31). Also, in the second pass, the postal objects of collection  $C_b$  are fed to second input device B, and are directed towards a second subset  $W_b$  of output bins. In this manner, the postal objects are disposed in order by delivery address.

However, Appellants submit that De Leo does not disclose that the control constrains placement of the products to output groups assigned in the first pass phase such that the groupings of the products to the assigned output groups *remain constant* between the first pass phase and the second pass phase. That is, in De Leo, the assigned output groups of output bins do not remain constant between the first pass and second pass, as required by claim 1. This is clearly shown by comparison of FIGS. 1a and 1b of De Leo. For example, in the first pass, item  $R_{1b}$  is placed in output bin  $U_2$ , as is shown in FIG. 1a. Then in the second pass, this same item  $R_{1b}$  is placed in an output bin of group  $W_b$ , as shown in FIG. 1b. However, as is clearly seen in FIGS. 1a and 1b, output bin  $U_2$  is not in group  $W_b$ . Put another way, item  $R_{1b}$  is not placed in the same group of output bins in the first pass phase and in the second pass phase. Thus, the assigned groups of output bins do not *remain constant* between the first pass and second pass.

For the sake of argument, Appellants have reproduced FIGS. 1a and 1b of De Leo below. Moreover, to further clarify the arguments set forth herein, Appellants have added numerical labels (e.g.,  $U_1$ ,  $U_2$ , etc.) to each of the output bins  $U_i$ . Thus, as can be seen in the reproduced figures, output group  $W_a$  contains bins  $U_1$  through  $U_7$ , and output group  $W_b$  contains bins  $U_8$  through  $U_{13}$ .

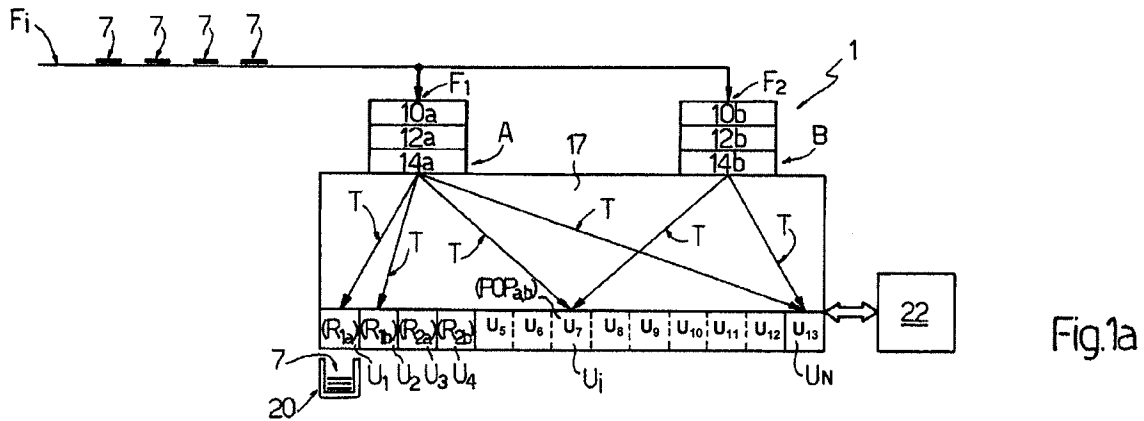


Fig.1a

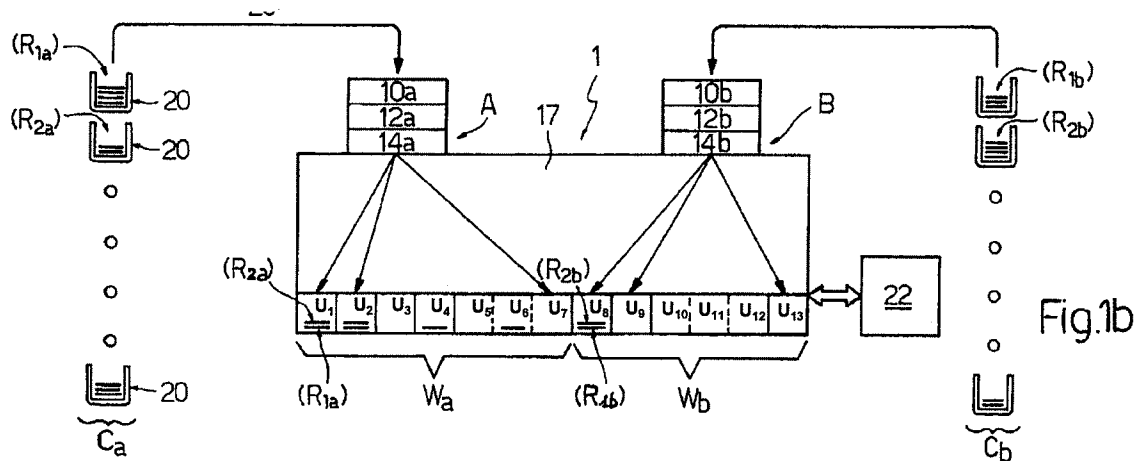


Fig.1b

For De Leo to anticipate the claimed invention, items placed in output bins  $U_{1-7}$  in the first pass phase (FIG. 1a) would need to be constrained to placement in these same output bins  $U_{1-7}$  in the second pass phase (FIG. 1b). Likewise, items placed in output bins  $U_{8-13}$  in the first pass phase (FIG. 1a) would need to be constrained to placement in bins  $U_{8-13}$  in the second pass phase (FIG. 1b). However, as can be clearly seen from the figures, item  $R_{1b}$  is placed in bin  $U_2$  in the first pass, and then placed in bin  $U_8$  in the second pass. That is, item  $R_{1b}$  is not constrained to the same group of output bins between the first pass and the second pass. Thus, contrary to the claimed invention, De Leo does not show that the control constrains placement of the

products to output groups assigned in the first pass phase such that the groupings of the products to the assigned output groups *remain constant* between the first pass phase and the second pass phase. Therefore, De Leo does not contain all of the features of claim 1 and does not anticipate claims 1-6 and 9-12.

Claim 7 rejected under 35 U.S.C. §102(b) in view of De Leo

The rejection of claim 7 under 35 U.S.C. §102(b) is in error, the decision of the Examiner to reject these claims should be reversed, and the application should be remanded to the Examiner.

Claim 7 depends from allowable independent claim 1, and additionally recites the control maintains a same grouping of output bins between the first pass phase and the second pass phase.

De Leo does not disclose these features. As discussed above with respect to claim 1, De Leo does not disclose that the control constrains placement of the products to output groups assigned in the first pass phase such that the groupings of the products to the assigned output groups *remain constant* between the first pass phase and the second pass phase. To the contrary, De Leo explicitly shows an item ( $R_{1b}$ ) placed in an output bin of group  $W_b$  in the second pass phase, after being placed in a bin ( $U_2$ ) not in group  $W_b$  in the first pass phase. Therefore, De Leo does not show that the control maintains a same grouping of output bins between the first pass phase and the second pass phase, and fails to disclose each and every feature of claim 7.

Claim 8 rejected under 35 U.S.C. §102(b) in view of De Leo

The rejection of claim 8 under 35 U.S.C. §102(b) is in error, the decision of the Examiner to reject these claims should be reversed, and the application should be remanded to the Examiner.

Claim 8 depends from allowable independent claim 1, and additionally recites that the control constrains each of the input feeding devices, on the second pass phase, to feeding product, received from a previously assigned output group maintained from the first pass phase, to a same output group in the second pass phase.

De Leo does not disclose these features. As discussed above with respect to claim 1, De Leo does not disclose that the control constrains placement of the products to output groups assigned in the first pass phase such that the groupings of the products to the assigned output groups *remain constant* between the first pass phase and the second pass phase. To the contrary, De Leo explicitly shows an item ( $R_{1b}$ ) placed in an output bin of group  $W_b$  in the second pass phase, after being placed in a bin ( $U_2$ ) not in group  $W_b$  in the first pass phase. Therefore, De Leo does not show that the control constrains each of the input feeding devices, on the second pass phase, to feeding product, received from a previously assigned output group maintained from the first pass phase, to a same output group in the second pass phase, and does not anticipate claim 8.

*Claims 13, 15, and 16 rejected under 35 U.S.C. §102(b) in view of De Leo*

The rejection of claims 13, 15, and 16 under 35 U.S.C. §102(b) is in error, the decision of the Examiner to reject these claims should be reversed, and the application should be remanded to the Examiner.

In non-limiting exemplary embodiments of the invention, the output groups of output bins, in addition to remaining constant between the first pass phase and the second pass phase, are made up of contiguous output bins. For example, the first output group 106a may comprise contiguous bins numbered 1 through 90, out of 360 total output bins. Independent claim 13 recites, in pertinent part:

... a plurality of input feeding devices each randomly receiving products from a stream of product;

a plurality of output groups corresponding to the plurality of input feeding devices during a first pass phase and a second pass phase, the plurality of input feeding devices feeding the products to output bins of the plurality of output groups; and

a control allowing all input feeding devices of the plurality of input feeding devices complete access to all output groups of the plurality of output groups during the first pass phase and assigning contiguous output bins to predetermined output groups of the plurality of output groups and associating each of the predetermined output groups with respective input feeding devices such that the predetermined output groups remain constant between the first pass phase and the second pass phase.

The Examiner asserts that De Leo discloses the features of claim 13 in “col. 3, lines 10+; col. 5, lines 10+” (final Office Action, page 4). Appellants respectfully disagree.

The arguments that are presented above with respect to claim 1 are incorporated herein.

As discussed above with respect to claim 1, De Leo does not disclose that the output groups *remain constant* between the first pass phase and the second pass phase. For example, in the first pass of De Leo, item  $R_{1b}$  is placed in output bin  $U_2$ , as is shown in FIG. 1a. Then in the second pass, this same item  $R_{1b}$  is placed in an output bin of group  $W_b$ , as shown in FIG. 1b. However, as is clearly seen in FIGS. 1a and 1b, output bin  $U_2$  is not in group  $W_b$ . That is, item  $R_{1b}$  is not placed in the same group of output bins in the first pass phase and in the second pass phase. Thus, the predetermined output groups do not *remain constant* between the first pass phase and the second pass phase, as recited in claim 13.

Moreover, Appellants respectfully submit that the Examiner has failed to identify the features of claim 13 in De Leo, and, therefore, has failed to properly establish a *prima facie* case of anticipation with respect to claim 13. That is, the Examiner has not adequately explained how or where De Leo discloses a controller assigning *contiguous output bins to predetermined output*

*groups* of the plurality of output groups and associating each of the predetermined output groups with respective input feeding devices *such that the predetermined output groups remain constant between the first pass phase and the second pass phase*, as recited in claim 13. Put another way, the Examiner has not identified output groups of contiguous output bins during the first pass phase in De Leo. Therefore, the Examiner has failed to establish a *prima facie* case of anticipation.

In any event, Appellants submit that De Leo does not disclose assigning *contiguous* output bins to predetermined output groups of the plurality of output groups such that the predetermined output groups remain constant between the first pass phase and the second pass phase, as further recited in claim 13. Appellants admit that De Leo does appear to disclose groups  $W_a$ ,  $W_b$  of contiguous output bins in the second pass phase. However, there is simply no disclosure in De Leo of groups of *contiguous output bins in the first pass phase*, much less of groups of contiguous output bins that *remain constant* between the first pass phase and the second pass phase. In fact, the output bins in the first pass phase which will be subsequently assigned in the second pass phase are not contiguous. Therefore, De Leo does not contain each and every feature of claim 13, and does not anticipate the claimed invention.

For all of the above-noted reasons, Appellants submit that the rejection of claim 13, and that of claims 15 and 16 which depend from claim 13, in view of De Leo is improper and should be withdrawn.

*Claim 14 rejected under 35 U.S.C. §102(b) in view of De Leo*

The rejection of claim 14 under 35 U.S.C. §102(b) is in error, the decision of the Examiner to reject these claims should be reversed, and the application should be remanded to the Examiner.

Claim 14 depends from allowable independent claim 13, and additionally recites that the control constrains placement of the products to the predetermined output groups assigned in the first pass phase during the second pass phase such that the groupings of the products remain constant between the first pass phase and the second pass phase.

De Leo does not disclose these features. As previously discussed, De Leo does not disclose that the predetermined output groups remain constant between the first pass phase and the second pass phase. To the contrary, De Leo explicitly shows an item ( $R_{1b}$ ) placed in an output bin of group  $W_b$  during the second pass phase, after being placed in a bin ( $U_2$ ) not in group  $W_b$  during the first pass phase. Therefore, De Leo does not show that the control constrains placement of the products to the predetermined output groups assigned in the first pass phase during the second pass phase such that the groupings of the products remain constant between the first pass phase and the second pass phase, and fails to disclose each and every feature of claim 14.

*Claims 17, 19, and 20 rejected under 35 U.S.C. §102(b) in view of De Leo*

The rejection of claims 17, 19, and 20 under 35 U.S.C. §102(b) is in error, the decision of the Examiner to reject these claims should be reversed, and the application should be remanded to the Examiner.

In non-limiting exemplary embodiments of the invention, the method comprises feeding each of the items to be sequenced, in a first pass phase, from the input feeding devices 102a-d to an assigned group of output bins of a plurality of output groups 106a-d. The method further comprises assigning each of the plurality of input feeding devices to each of the assigned output groups of output bins. More particularly, independent claim 17 recites:

17. A method of sequencing product, comprising the steps of:

providing a plurality of product from a stream of product to any of a plurality of input devices;

feeding each of the plurality of product, in a first pass phase, to an assigned group of output bins of a plurality of output groups based on a code associated with the each of the product, the plurality of product being fed by the plurality of input devices; and

assigning each of the plurality of input devices to each of the assigned group of output bins.

De Leo does not disclose this combination of features and, therefore, does not anticipate the claimed invention. The Examiner asserts that De Leo discloses the features of claim 17 in “col. 3, lines 10+; col. 5, lines 10+” (final Office Action, page 5). Appellants respectfully disagree.

De Leo does not disclose feeding each of the plurality of product, in a first pass phase, to an assigned group of output bins and assigning each of the plurality of input devices to each of the assigned group of output bins. Claim 17 requires that the input feeding devices are assigned to groups used during the first pass. De Leo does not disclose groups of bins used during the first pass phase that are assigned to the input feeding devices. Instead, De Leo discloses assigning input feeding device  $F_1$  to output group  $W_a$  and input feeding device  $F_2$  to output group  $W_b$ . However, groups  $W_a$ ,  $W_b$  are not present or used during the first pass phase. As such, the assigning of the input feeding devices to these groups  $W_a$ ,  $W_b$  does not constitute the combination of features recited in claim 17.

For the above-noted reasons, Appellants submit that De Leo does not disclose all of the features of claim 17, and, therefore, does not anticipate claims 17, 19, and 20.



*Claim 18 rejected under 35 U.S.C. §102(b) in view of De Leo*

The rejection of claim 18 under 35 U.S.C. §102(b) is in error, the decision of the Examiner to reject these claims should be reversed, and the application should be remanded to the Examiner.

Claim 18 depends from allowable independent claim 17, and additionally recites constraining placement of the plurality of product during a second pass phase to the assigned group of output bins such that the assigned group of output bins remain constant between the first pass phase and a second pass phase.

De Leo does not disclose these features. The arguments that are presented above with respect to claim 1 are incorporated herein. As previously discussed, De Leo does not disclose that the predetermined output groups remain constant between the first pass phase and the second pass phase. To the contrary, De Leo explicitly shows an item ( $R_{1b}$ ) placed in an output bin of group  $W_b$  during the second pass phase, after being placed in a bin ( $U_2$ ) not in group  $W_b$  during the first pass phase. Therefore, De Leo does not disclose constraining placement of the plurality of product during a second pass phase to the assigned group of output bins such that the assigned group of output bins remain constant between the first pass phase and a second pass phase, and fails to disclose each and every feature of claim 18.

**(B) Claims 1-20 rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,274,836 issued to Walach et al. ("Walach").**

*Claims 1-10 and 12 rejected under 35 U.S.C. §102(b) in view of Walach*

The rejection of claims 1-10 and 12 under 35 U.S.C. §102(b) is in error, the decision of the Examiner to reject these claims should be reversed, and the application should be remanded to the Examiner.

Independent claim 1 recites, amongst other features, a plurality of input feeding devices each randomly receiving products from a stream of product. Appellants submit that Walach does not disclose these features, and, therefore, does not anticipate the claimed invention.

The Examiner asserts that Walach shows the features of claim 1 in “col. 3, lines 46+; col. 4, lines 10+; col. 5, lines 38+” (Final Office Action, page 6). Appellants respectfully disagree.

Walach discloses a method and system for object sorting. The system comprises a multi-bin article sorter preferably comprising a plurality of P input bins and a plurality of N output bins (col. 5, lines 37-43). In a first pass, the articles are sorted into N output groups of articles being placed by the sorter in each of the N output bins thereof. After the first pass, the N output groups are grouped into P input groups. The P input groups are resorted by placing each of the P input groups into a corresponding one of the P input bins. The sorter sorts the P input groups into N new output groups, each of the N new output groups being associated with and fed by exactly one of the P input bins (col. 5, lines 47-63).

Walach also discloses that, before the first pass, the articles are divided approximately equally between the two input bins (col. 7, lines 8-9). As such, Walach does not disclose a plurality of input feeding devices each randomly receiving products from a stream of product. That is, Walach does not disclose a *stream* of product, much less that the input bins *P randomly* receive products from a *stream* of product. Instead, Walach discloses that before the first pass, the articles are divided approximately equally between the two input bins (col. 7, lines 8-9). Appellants submit that the division of product equally between the two input bins teaches away from a plurality of input feeding devices *randomly* receiving product from a stream of product. In fact, Appellants submit that, by definition, if the product is *equally* distributed, then it cannot be *randomly* assigned to the input feeding devices. Thus, Walach cannot stand for the

proposition of a plurality of input feeding devices *randomly* receiving product from a *stream* of product.

Appellants also note that in the Response to Arguments section of the Final Office Action, the Examiner cites lines 33-35 of column 9 of Walach. Appellants submit that this passage merely discloses “providing a multiplicity of articles to be sorted, each one of said multiplicity of articles having an associated sorting key”. This passage does not imply a stream of product, or random assignment of product to individual input feeding devices. Taken in context with the remaining portion of Walach’s disclosure, this passage merely alludes to the sort key used in the sorting process *after* the articles have already been equally divided between the input bins. Therefore, Appellants submit, this passage does not disclose a plurality of input feeding devices each randomly receiving products from a stream of product, as recited in claim 1.

Accordingly, Appellants submit that Walach fails to disclose each and every feature of claim 1, and, therefore, fails to anticipate claim 1 and claims 2-10 and 12 which depend therefrom.

*Claim 11 rejected under 35 U.S.C. §102(b) in view of Walach*

The rejection of claim 11 under 35 U.S.C. §102(b) is in error, the decision of the Examiner to reject these claims should be reversed, and the application should be remanded to the Examiner.

Claim 11 depends from allowable independent claim 1, and additionally recites that the plurality of input feeding devices is four input feeding devices and the plurality of output groups is equal to a number of the plurality of input feeding devices.

Walach does not disclose four input feeding devices. Instead Walach discloses a system with two input bins (column 7, lines 3-4), and another system with three input bins (column 9, line 1). Walach does not, however, disclose four input bins. Therefore, Walach fails to disclose each and every feature of claim 11, and, therefore, fails to anticipate the claimed invention.

Claims 13-16 rejected under 35 U.S.C. §102(b) in view of Walach

The rejection of claims 13-16 under 35 U.S.C. §102(b) is in error, the decision of the Examiner to reject these claims should be reversed, and the application should be remanded to the Examiner.

Independent claim 13 recites, amongst other features, a plurality of input feeding devices each randomly receiving products from a stream of product. Appellants submit that Walach does not disclose these features, and, therefore, does not anticipate the claimed invention.

The Examiner asserts that Walach shows the features of claim 13 in cols. 3-5 (Final Office Action, pages 6 and 8-9). Appellants respectfully disagree.

The arguments that are presented above with respect to claim 1 are incorporated herein. As discussed above with respect to claim 1, Walach does not disclose a plurality of input feeding devices each randomly receiving products from a stream of product. Instead, Walach discloses that before the first pass, the articles are divided approximately equally between the two input bins (col. 7, lines 8-9). Appellants submit, however, that this does not constitute a plurality of input feeding devices each randomly receiving products from a stream of product, as recited and described in the instant application. In fact, Appellants submit that, by definition, if the product is *equally* distributed, then it cannot be *randomly* assigned to the input feeding devices.

Appellants also note that in the Response to Arguments section of the Final Office Action, the Examiner cites lines 33-35 of column 9 of Walach. Appellants submit that this

passage merely discloses “providing a multiplicity of articles to be sorted, each one of said multiplicity of articles having an associated sorting key”. This passage does not imply a stream of product, or random assignment of product to individual input feeding devices. Taken in context with the remaining portion of Walach’s disclosure, this passage merely alludes to the sort key used in the sorting process *after* the articles have already been equally divided between the input bins. Therefore, Appellants submit, this passage does not disclose a plurality of input feeding devices each randomly receiving products from a stream of product, as recited in claim 1.

Accordingly, Appellants submit that Walach fails to disclose each and every feature of claim 13, and, therefore, fails to anticipate claim 13 and claims 14-16 which depend therefrom.

*Claims 17-20 rejected under 35 U.S.C. §102(b) in view of Walach*

The rejection of claims 17-20 under 35 U.S.C. §102(b) is in error, the decision of the Examiner to reject these claims should be reversed, and the application should be remanded to the Examiner.

Independent claim 17 recites, amongst other features, providing a plurality of product from a stream of product to any of a plurality of input devices. Appellants submit that Walach does not disclose these features, and, therefore, does not anticipate the claimed invention.

The Examiner asserts that Walach shows the features of claim 17 in cols. 3-5 (Final Office Action, pages 9-10). Appellants respectfully disagree and submit that Walach does not disclose providing a plurality of product from a stream of product to any of a plurality of input devices.

The arguments that are presented above with respect to claim 1 are incorporated herein. As discussed above, Walach merely discloses input bins P and a sorter, and that the articles are

divided approximately equally between the input bins. Walach does not, however, disclose a *stream* of product, much less that products from a *stream* of product can be provided to *any* of a plurality of input devices. Therefore, Walach does not disclose each and every element of claim 17, and does not anticipate claims 17-20.

### **Conclusion**

In view of the foregoing remarks, Appellants submit that claims 1-20 are patentably distinct from the prior art of record and are in condition for allowance. Accordingly, Appellants respectfully request that the Board reverse the Examiner's rejection of claims 1-20, and remand the application to the Examiner for withdrawal of the above-noted rejections.

Respectfully submitted,  
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**(VIII) CLAIMS APPENDIX**

The following is a listing of the claims involved in the appeal.

1. (original) A system for sequencing products, comprising:

a plurality of input feeding devices each randomly receiving products from a stream of product;

a plurality of output groups corresponding to the plurality of input feeding devices during a first pass phase and a second pass phase, the plurality of input feeding devices feeding the product to a plurality of output bins of the plurality of output groups; and

a control having a first mode of operation and a second mode of operation for the first pass phase and the second pass phase, respectively, wherein

in the first mode, the control allows all input feeding devices of the plurality of input feeding devices complete access to all output groups of the plurality of output groups during the first pass phase, and

in the second mode, the control constrains placement of the products to output groups assigned in the first pass phase such that the groupings of the products to the assigned output groups remain constant between the first pass phase and the second pass phase.

2. (original) The system of claim 1, wherein the control, in the first mode, allows the products fed from any of the plurality of input feeding devices access to any output group of the plurality of output groups based on a code of the products.

3. (original) The system of claim 1, wherein the control assigns each input feeding device to an associated particular output group of the plurality of output groups.

4. (original) The system of claim 3, wherein the products, in the second pass phase, are fed through each of the assigned input device to each of the associated particular output group.

5. (original) The system of claim 1, wherein each of the assigned output groups has a plurality of output bins such that, in the second pass phase, the products placed in the output bins of the each associated assigned output groups are fed to the each corresponding assigned input feeding device in a sequential order of the output bins in the each assigned output groups.

6. (original) The system of claim 1, wherein the plurality of input devices is equal to the plurality of output groups.

7. (original) The system of claim 1, wherein the control maintains a same grouping of output bins between the first pass phase and the second pass phase.

8. (original) The system of claim 1, wherein the control constrains each of the input feeding devices, on the second pass phase, to feeding product, received from a previously assigned output group maintained from the first pass phase, to a same output group in the second pass phase.



9. (original) The system of claim 1, wherein the each output group of the plurality of output groups is designated for a number of routes.

10. (original) The system of claim 1, wherein the plurality of input feeding devices is at least two input feeding devices.

11. (original) The system of claim 1, wherein the plurality of input feeding devices is four input feeding devices and the plurality of output groups is equal to a number of the plurality of input feeding devices.

12. (original) The system of claim 1, wherein the products are mail pieces.

13. (original) A system for sequencing products, comprising:

a plurality of input feeding devices each randomly receiving products from a stream of product;

a plurality of output groups corresponding to the plurality of input feeding devices during a first pass phase and a second pass phase, the plurality of input feeding devices feeding the products to output bins of the plurality of output groups; and

a control allowing all input feeding devices of the plurality of input feeding devices complete access to all output groups of the plurality of output groups during the first pass phase and assigning contiguous output bins to predetermined output groups of the plurality of output groups and associating each of the predetermined output groups with respective input feeding

devices such that the predetermined output groups remain constant between the first pass phase and the second pass phase.

14. (original) The system of claim 13, wherein the control constrains placement of the products to the predetermined output groups assigned in the first pass phase during the second pass phase such that the groupings of the products remain constant between the first pass phase and the second pass phase.

15. (original) The system of claim 13, wherein the products, in the second pass phase, are fed through the respective input feeding devices to the associated predetermined output groups.

16. (original) The system of claim 13, wherein the products are mail pieces.

17. (original) A method of sequencing product, comprising the steps of:  
providing a plurality of product from a stream of product to any of a plurality of input devices;

feeding each of the plurality of product, in a first pass phase, to an assigned group of output bins of a plurality of output groups based on a code associated with the each of the product, the plurality of product being fed by the plurality of input devices; and

assigning each of the plurality of input devices to each of the assigned group of output bins.

18. (original) The method of claim 17, further comprising the step of constraining placement of the plurality of product during a second pass phase to the assigned group of output bins such that the assigned group of output bins remain constant between the first pass phase and a second pass phase.

19. (original) The method of claim 17, further comprising assigning each of the plurality of input devices to feed product of the plurality of product, during the second sort phase, to each of the assigned group of output bins.

20. (original) The method of claim 17, wherein the plurality of products are mail pieces.

**(IX) EVIDENCE APPENDIX**

This section lists evidence submitted pursuant to 37 C.F.R. §§1.130, 1.131, or 1.132, or any other evidence entered by the Examiner and relied upon by Appellant in this appeal, and provides for each piece of evidence a brief statement setting forth where in the record that evidence was entered by the Examiner. Copies of each piece of Evidence are provided as required by 37 C.F.R. §41.37(c)(1)(ix).

<b>NO.</b>	<b>EVIDENCE</b>	<b>BRIEF STATEMENT SETTING FORTH WHERE IN THE RECORD THE EVIDENCE WAS ENTERED BY THE EXAMINER</b>
1	N/A	N/A

**(X) RELATED PROCEEDINGS APPENDIX**

Pursuant to 37 C.F.R. §41.37(c)(1)(x) copies of the following decisions rendered by a court or the Board in any proceeding identified above in the Related Appeals and Interferences section.

<b>NO.</b>	<b>TYPE OF PROCEEDING</b>	<b>REFERENCE NO.</b>	<b>DATE</b>
1	N/A	N/A	N/A